

SEQUENCE PROTOCOL

<110> Bullerdiel, Jörn

<120> | Preparation for The Prevention and/or Treatment  
| of a Tissue Change of Mesenchymal Origin

<130> B3960PCT

<140>

<141>

<160> 47

<170> PatentIn Ver. 2.1

<210> 1

<211> 19

<212> DNA

<213> artificial sequence

<220>

<223> |description of the artificial sequence: primer HsgA1

<400> 1

aaggtgtcaa tyatgtttg

19

<210> 2

<211> 14

<212> DNA

<213> artificial sequence

<220>

<223> |description of the artificial sequence: primer HsgA2

<400> 2

acggttactt kttt

14

<210> 3

<211> 18

<212> DNA

<213> artificial sequence

<220>

<223> |description of the artificial sequence: primer HsgB1

<400> 3

tctattccct acctggat

18

<210> 4

<211> 17

<212> DNA

<213> artificial sequence

<220>

<223> |description of the artificial sequence: primer HsgB2

<400> 4

actcttaacg gcagtag

17

<210> 5

<211> 32

<212> DNA

<213> artificial sequence

<220>

<223> description of the artificial sequence: primer ADE1Bg12S

<400> 5

gaagatcttt atagatggaa tggtgccaac at

32

<210> 6

<211> 31

<212> DNA

<213> artificial sequence

<220>

<223> description of the artificial sequence: primer ADE1Hi3AS

<400> 6

cccaagctta aaactcttct cgttggcagt c

31

<210> 7

<211> 17

<212> DNA

<213> artificial sequence

<220>

<223> description of the artificial sequence: primer HsgC1

<400> 7

acctttgact cttctgt

17

<210> 8

<211> 17

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<213> artificial sequence

<220>

<223> description of the artificial sequence: primer HsgC2

<400> 8

tccttgatt tagtacc

17

<210> 9

<211> 18

<212> DNA

<213> artificial sequence

<220>

<223> description of the artificial sequence: primer HsgD1

<400> 9

ccatcatgtt cgactcct

18

<210> 10  
<211> 17  
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<213> artificial sequence

<220>  
<223> description of the artificial sequence: primer HsgD2

<400> 10  
aggtagccgg tgaagcc

17

<210> 11  
<211> 18  
<212> DNA  
<213> artificial sequence

<220>  
<223> description of the artificial sequence: primer HsgE1

<400> 11  
gactcttccg tcagctgg

18

<210> 12  
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<213> artificial sequence

<220>  
<223> description of the artificial sequence: primer HsgE2

<400> 12  
gctggtaacg gcgctct

17

<210> 13  
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<213> artificial sequence

<220>  
<223> description of the artificial sequence: primer HsgF1

<400> 13  
atttctattc cttcgcg

17

<210> 14  
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<212> DNA  
<213> artificial sequence

<220>  
<223> description of the artificial sequence: primer HsgF2

<400> 14  
tcaggcttgg tacggcc

17

<210> 15  
<211> 430  
<212> DNA  
<213> Adenovirus: isolate X765551Ko

<400> 15  
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gacggggaag ggtacaatgt ggcccaatgt aacatgacca aagactgggt cctgggttcag 180  
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300  
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccataaccg 420  
ctcatcgga 430

<210> 16  
<211> 430  
<212> DNA  
<213> Adenovirus: isolate M2-3s

<400> 16  
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gacggggaag ggtacaatgt ggcccaatgt aacatgacca aagactgggt cctgggttcag 180  
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300  
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccataaccg 420  
ctcatcgga 430

<210> 17  
<211> 430  
<212> DNA  
<213> Adenovirus: isolate M7-1s

<400> 17  
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agctggcctg gcaatgacag gctgttgagc ccaaagtgtg ttgaaatcaa gcgcactgtg 120  
gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180  
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
cgcatgtact cttttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300  
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
gggtaccttg cacctactat gagacaaggg gaaccttacc cagccaatta tccataaccg 420  
ctcatcgga

<210> 18  
<211> 430  
<212> DNA  
<213> Adenovirus: isolate M8-2s

<400> 18  
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agctggcctg gcaatgacag gctgttgagc ccaaagtgtg ttgaaatcaa gcgcactgtg 120  
gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180  
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
cgcatgtact cttttttcag aaacttccag cctacgagca ggcaggtggt tgatgaggtt 300  
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
gggtaccttg cacctactat gagacaaggg gaaccttacc cagccaatta tccataaccg 420

ctcatcgga

<210> 19

<211> 143

<212> PRT

<213> Adenovirus: isolate X765551Ko

<400> 19

Gly	Thr	Phe	Tyr	Leu	Asn	His	Thr	Phe	Lys	Lys	Val	Ser	Ile	Met	Phe
1				5					10					15	
Asp	Ser	Ser	Val	Ser	Trp	Pro	Gly	Asn	Asp	Arg	Leu	Leu	Ser	Pro	Asn
			20					25					30		
Glu	Phe	Glu	Ile	Lys	Arg	Thr	Val	Asp	Gly	Glu	Gly	Tyr	Asn	Val	Ala
		35					40					45			
Gln	Cys	Asn	Met	Thr	Lys	Asp	Trp	Phe	Leu	Val	Gln	Met	Leu	Ala	Asn
	50					55					60				
Tyr	Asn	Ile	Gly	Tyr	Gln	Gly	Phe	Tyr	Ile	Pro	Glu	Gly	Tyr	Lys	Asp
	65				70					75					80
Arg	Met	Tyr	Ser	Phe	Phe	Arg	Asn	Phe	Gln	Pro	Met	Ser	Arg	Gln	Val
				85					90					95	
Val	Asp	Glu	Val	Asn	Tyr	Thr	Asp	Tyr	Lys	Ala	Val	Thr	Leu	Pro	Tyr
			100						105				110		
Lys	His	Asn	Asn	Ser	Gly	Phe	Val	Gly	Tyr	Leu	Ala	Pro	Thr	Met	Arg
		115					120					125			
Gln	Gly	Glu	Pro	Tyr	Pro	Ala	Asn	Tyr	Pro	Tyr	Pro	Leu	Ile	Gly	
	130					135						140			

<210> 20

<211> 143

<212> PRT

<213> Adenovirus: isolate M2-3s

<400> 20

Gly	Thr	Phe	Tyr	Leu	Asn	His	Thr	Phe	Lys	Lys	Val	Ser	Ile	Met	Phe
1				5					10					15	
Asp	Ser	Ser	Val	Ser	Trp	Pro	Gly	Asn	Asp	Arg	Leu	Leu	Ser	Pro	Asn
			20					25					30		
Glu	Phe	Glu	Ile	Lys	Arg	Thr	Val	Asp	Gly	Glu	Gly	Tyr	Asn	Val	Ala
		35					40					45			
Gln	Cys	Asn	Met	Thr	Lys	Asp	Trp	Phe	Leu	Val	Gln	Met	Leu	Ala	Asn
	50					55					60				
Tyr	Asn	Ile	Gly	Tyr	Gln	Gly	Phe	Tyr	Ile	Pro	Glu	Gly	Tyr	Lys	Asp
	65				70					75					80
Arg	Met	Tyr	Ser	Phe	Phe	Arg	Asn	Phe	Gln	Pro	Met	Ser	Arg	Gln	Val
				85					90					95	
Val	Asp	Glu	Val	Asn	Tyr	Thr	Asp	Tyr	Lys	Ala	Val	Thr	Leu	Pro	Tyr

100	105	110
Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg		
115	120	125
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly		
130	135	140

<210> 21  
 <211> 143  
 <212> PRT  
 <213> Adenovirus: isolate M7-1s

<400> 21
Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe
1 5 10 15
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn
20 25 30
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala
35 40 45
Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn
50 55 60
Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp
65 70 75 80
Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val
85 90 95
Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr
100 105 110
Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg
115 120 125
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly
130 135 140

<210> 22  
 <211> 143  
 <212> PRT  
 <213> Adenovirus: isolate M8-2s

<400> 22
Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe
1 5 10 15
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn
20 25 30
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala
35 40 45
Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn
50 55 60

Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
65 70 75 80

Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Thr Ser Arg Gln Val  
85 90 95

Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110

Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125

Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140

<210> 23

<211> 430

<212> DNA

<213> Adenovirus: isolate AF065068Ko

<400> 23

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ggcacttttt accttaacca cactttcaag aaggtctcca tcatgtttga ctccctcagtc 60
agctggcctg gcaatgacag gctgttgctt ccaaagtagt ttgaaatcaa gcgcactgtg 120
gatggggaag gatacaatgt ggcccaatgc aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcagggtgt tgatgagggt 300
aattacactg actacaaagc cgtcacctta ccatatcaac acaacaactc tggctttgta 360
ggataccttg cgctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430
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<210> 24

<211> 430

<212> DNA

<213> Adenovirus: isolate M6-ls

<400> 24

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agctggcctg gcaatgacag gctgttgctt ccaaagtagt ttgaaatcaa gcgcactgtg 120
gatggggaag gatacaatgt ggcccaatgc aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcagggtgt tgatgagggt 300
aattacactg actacaaagc cgtcacctta ccatatcaac acaacaactc tggctttgta 360
ggataccttg cgctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430
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<210> 25

<211> 143

<212> PRT

<213> Adenovirus: isolate AF065068Ko

<400> 25

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
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Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30

Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala

35                      40                      45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
     50                      55                      60  
 Tyr Asn Ile Gly Tyr Lys Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
     65                      70                      75                      80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
                     85                      90                      95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
                     100                      105                      110  
 Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
                     115                      120                      125  
 Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
                     130                      135                      140

<210> 26

<211> 143

<212> PRT

<213> Adenovirus: isolate M6-1s

<400> 26

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
     1                      5                      10                      15  
 Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
                     20                      25                      30  
 Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
                     35                      40                      45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
     50                      55                      60  
 Tyr Asn Ile Gly Tyr Lys Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
     65                      70                      75                      80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
                     85                      90                      95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
                     100                      105                      110  
 Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
                     115                      120                      125  
 Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
                     130                      135                      140

<210> 27

<211> 430

<212> DNA

<213> Adenovirus: isolate AF065065Ko

<400> 27

ggcacccttt accctaacca cactttccaag aagggtctcca tcatgtttga ctccctcagtc 60



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agctggcctg gcaatgacag gctgttgagc ccaaatgagt ttgaaatcaa gcgcactgtg 120
gacggggaag ggtacaatgt ggccaatgt aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430

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<210> 28

<211> 430

<212> DNA

<213> Adenovirus: isolate M3.3P-2

<400> 28

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gacggggaag ggtacaatgt ggccaanngt aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tncctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggc tgatgaggtt 300
aattacactg actacaaagc cggcacctta ccataccaac acaacaactc tggctttgta 360
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430

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<210> 29

<211> 430

<212> DNA

<213> Adenovirus: isolate M5-1s

<400> 29

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agctggcctg gcaatgacag gctgttgagc ccaaatgagt ttgaaatcaa gcgcactgtg 120
gacggggaag ggtacaatgt ggccaatgt aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430

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<210> 30

<211> 430

<212> DNA

<213> Adenovirus: isolate M9-2s

<400> 30

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agctggcctg gcaatgacag gctgttgagc ccaaatgagt ttgaaatcaa gcgcactgtg 120
gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cttttttcag aaacttccag cctatgagca ggcaggtggt tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
gggtaccttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcgga 430

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<210> 31

<211> 143

<212> PRT

<213> Adenovirus: isolate AF065065Ko

<400> 31

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
1 5 10 15  
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30  
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45  
Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
50 55 60  
Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
65 70 75 80  
Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
85 90 95  
Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110  
Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125  
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140

<210> 32

<211> 143

<212> PRT

<213> Adenovirus: isolate M3-3p

<400> 32

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
1 5 10 15  
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30  
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45  
Xaa Xaa Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
50 55 60  
Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Xaa Pro Glu Gly Tyr Lys Asp  
65 70 75 80  
Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
85 90 95  
Ala Asp Glu Xaa Asn Tyr Thr Asp Tyr Lys Ala Gly Thr Leu Pro Tyr  
100 105 110  
Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125  
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly

130

135

140

&lt;210&gt; 33

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Adenovirus: isolate M5-1s

&lt;400&gt; 33

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
 1 5 10 15  
 Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
 20 25 30  
 Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
 35 40 45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
 50 55 60  
 Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
 65 70 75 80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
 85 90 95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
 100 105 110  
 Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
 115 120 125  
 Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
 130 135 140

&lt;210&gt; 34

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Adenovirus: isolate M9-2s

&lt;400&gt; 34

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
 1 5 10 15  
 Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
 20 25 30  
 Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
 35 40 45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
 50 55 60  
 Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
 65 70 75 80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
 85 90 95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr

100

105

110

Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
 115 120 125

Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
 130 135 140

&lt;210&gt; 35

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Adenovirus: isolate M2-3s

&lt;400&gt; 35

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agctggcctg gcaatgacag gctgttgagc ccaaargagt ttgaaatcaa gcgcactgtg 120
gacggggaag ggtacaatgt ggcccaatgt aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggg tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcggaa 430

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&lt;210&gt; 36

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Adenovirus: isolate M5-1s

&lt;400&gt; 36

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ggcaccctttt acccttaacca cacttttcaag aagggtctcca tcatgtttga ctccctcagtc 60
agctggcctg gcaatgacag gctgttgagc ccaaargagt ttgaaatcaa gcgcactgtg 120
gacggggaag ggtacaatgt ggcccaatgt aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggg tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
gggtatcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcggaa

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&lt;210&gt; 37

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Adenovirus: isolate M6-1s

&lt;400&gt; 37

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ggcaccctttt acccttaacca cacttttcaag aagggtctcca tcatgtttga ctccctcagtc 60
agctggcctg gcaatgacag gctgttgctt ccaaargagt ttgaaatcaa gcgcactgtg 120
gatggggaag gatacaatgt ggcccaatgc aacatgacca aagactgggt cctgggttcag 180
atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240
cgcatgtact cctttttcag aaacttccag cctatgagca ggcaggtggg tgatgaggtt 300
aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360
ggataccttg cgccctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420
ctcatcggaa

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&lt;210&gt; 38

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Adenovirus: isolate M7-1s

<400> 38  
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 agctggcctg gcaatgacag gctgttgagc ccaaagttagt ttgaaatcaa gcgcactgtg 120  
 gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180  
 atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
 cgcattgtact cttttttcag aaacttccag cctatgagca ggcagggtgg tcatgaggtt 300  
 aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
 gggtagcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420  
 ctcatcggaa

<210> 39  
 <211> 430  
 <212> DNA  
 <213> Adenovirus: isolate M8-2s

<400> 39  
 ggcaccttct accttaacca cactttcaag aaggctctcca tcatgtttga ctccctcagtc 60  
 agctggcctg gcaatgacag gctgttgagc ccaaagttagt ttgaaatcaa gcgcactgtg 120  
 gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180  
 atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
 cgcattgtact cttttttcag aaacttccag cctatgagca ggcagggtgg tcatgaggtt 300  
 aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
 gggtagcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420  
 ctcatcggaa

<210> 40  
 <211> 430  
 <212> DNA  
 <213> Adenovirus: isolate M9-2s

<400> 40  
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 gacggggaag gatacaacgt ggcacaatgc aacatgacca aagactgggt cctagttcag 180  
 atgcttgcca actacaacat tggctaccag ggcttttaca tccctgaggg atacaaggat 240  
 cgcattgtact cttttttcag aaacttccag cctatgagca ggcagggtgg tcatgaggtt 300  
 aattacactg actacaaagc cgtcacctta ccataccaac acaacaactc tggctttgta 360  
 gggtagcttg cacctactat gagacaaggg gaaccttacc cagccaatta tccatacccg 420  
 ctcatcggaa

<210> 41  
 <211> 143  
 <212> PRT  
 <213> Adenovirus: isolate M2-3s

<400> 41  
 Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
 1 5 10 15  
 Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
 20 25 30  
 Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
 35 40 45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
 50 55 60  
 Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
 65 70 75 80

Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
85 90 95  
Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110  
Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125  
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140

<210> 42

<211> 143

<212> PRT

<213> Adenovirus: isolate M5-1s

<400> 42

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
1 5 10 15  
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30  
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45  
Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
50 55 60  
Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
65 70 75 80  
Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
85 90 95  
Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110  
Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125  
Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140

<210> 43

<211> 143

<212> PRT

<213> Adenovirus: isolate M6-1s

<400> 43

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
1 5 10 15  
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30  
Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45

Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
 50 55 60  
 Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
 65 70 75 80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
 85 90 95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
 100 105 110  
 Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
 115 120 125  
 Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
 130 135 140

<210> 44  
 <211> 143  
 <212> PRT  
 <213> Adenovirus: isolate M7-1s

<400> 44  
 Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
 1 5 10 15  
 Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
 20 25 30  
 Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
 35 40 45  
 Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
 50 55 60  
 Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
 65 70 75 80  
 Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
 85 90 95  
 Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
 100 105 110  
 Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
 115 120 125  
 Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
 130 135 140

<210> 45  
 <211> 143  
 <212> PRT  
 <213> Adenovirus: isolate M8-2s

<400> 45  
 Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
 1 5 10 15

Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30

Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45

Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
50 55 60

Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
65 70 75 80

Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Thr Ser Arg Gln Val  
85 90 95

Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110

Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125

Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140

<210> 46

<211> 143

<212> PRT

<213> Adenovirus: isolate M9-2s

<400> 46

Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe  
1 5 10 15

Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Ser Pro Asn  
20 25 30

Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala  
35 40 45

Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala Asn  
50 55 60

Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Gly Tyr Lys Asp  
65 70 75 80

Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val  
85 90 95

Val Asp Glu Val Asn Tyr Thr Asp Tyr Lys Ala Val Thr Leu Pro Tyr  
100 105 110

Lys His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg  
115 120 125

Gln Gly Glu Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly  
130 135 140



<210> 47  
 <211> 720  
 <212> DNA  
 <213> Adenovirus

<223> promoter sequence of the adenoviral protein E1A  
 (as shown in fig. 5)

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<400> 47
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cgtgggaaaa tgacgtgact tatgtgggag gagttatgtt gcaagttatt gcggtaaatg 180
tgacgtaaaa ggaggtgtgg tttgaacacg gaagtagaca gttttccac gcttactggg 240
aggatatgag gtagtttttg gcggatgcaa gtgaaaattc tccattttcg cgcgaaaact 300
gaatgaggaa gtgaatttct gagtcatttc gcggttatga caggggtggag tatttgccga 360
gggccgagta gactttgacc gtttacgtgg aggtttcgat taccgtgttt ttcacctaaa 420
ttcccgcgta cgggtgtcaaa gtccgtgtgt tttacgtagg tgcagctga tcgctagggg 480
atttaaacct gacgagttcc gtcaagaggg cactcttgag tgccagcgag aagagttttc 540
tcctccgcgc cgcaagtcag ttctgcgctt tgaaaaatgag acacctgcgc ttcttgccac 600
aggagattat ctccagttag accgggatcg aaatactgga gtttggtggt aataccctaa 660
tgggagacga cccggaaccg ccagtgcagc cttttgatcc acctacgctg cacgatctgt 720
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